

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

BMG RIGHTS MANAGEMENT (US) LLC, and)
ROUND HILL MUSIC LP,)

Plaintiff,)

v.)

COX ENTERPRISES, INC., COX)
COMMUNICATIONS, INC., and)
COXCOM, LLC,)

Defendants.)

Case No. 1:14-cv-1611 (LOG/JFA)

**MEMORANDUM IN SUPPORT OF COX’S MOTION TO EXCLUDE
THE TESTIMONY OF PUTATIVE EXPERT ROBERT A. BARDWELL, Ph.D.**

NON-CONFIDENTIAL PUBLIC VERSION

INTRODUCTION

Pursuant to Federal Rules of Evidence 702, 402, and 403, and Federal Rule of Civil Procedure 26(a)(2)(B), Cox brings this motion to exclude the opinions and testimony of Robert A. Bardwell, Ph.D., a mathematician who plans to testify that individual Cox subscribers engaged in repeated copyright infringement of Plaintiffs' songs. As in several other cases where courts have excluded Dr. Bardwell's testimony, his opinions here far exceed the scope of his expertise, rely on flawed assumptions, and utilize untestable methodology. His reports are also rife with highly misleading and inflammatory terms, creating a real risk of unfair prejudice and jury confusion.¹

The only data that Dr. Bardwell purports to analyze is data that Rightscorp generated. As Cox's summary judgment motion makes clear, that data only shows certain conditions at particular nodes on a network, purporting to match IP addresses with portions of .torrent files on particular dates. It does not show that an individual subscriber, rather than someone else with access to an IP address, engaged in any particular conduct. Nor does it show that anyone downloaded a particular song from a particular IP address. Quite simply, the Rightscorp data does not show that any individual Cox subscriber committed an infringement. And with no evidence of that *direct* infringement, Plaintiffs cannot prevail on their claims against Cox, all of which require Plaintiffs to prove that Cox is *indirectly* liable for its subscribers' infringement.

Plaintiffs now hope to overcome this evidentiary chasm by hiring Dr. Bardwell to draw unsupported and unreasonable inferences from the Rightscorp data, dressing up attorney

¹ In connection with their opposition to Cox's motion for summary judgment, Plaintiffs submitted a declaration by Dr. Bardwell, attaching his reports, in support of that opposition. Dkt. 391. For the reasons set forth in this motion, Cox also respectfully asks the Court to preclude Plaintiffs from relying on Dr. Bardwell's opinions to support their opposition to Cox's motion for summary judgment, as his opinions fail to meet the requirements of Federal Rules of Evidence 702, 401, 402, and 403, and therefore cannot create an issue of material fact.

argument in the guise of scientific fact. Although Dr. Bardwell is a mathematician with no background in Internet technology, the music industry, or copyright matters, he plans to testify that individual Cox subscribers engaged in repeated copyright infringement of Plaintiffs' songs. The Court should exclude these opinions for three principal reasons.

First, the words that pervade Dr. Bardwell's opinions simply do not mean what they purport to mean. What he calls an "individual subscriber" is not a subscriber at all. What he calls "infringement" does not refer to anyone downloading a song, or to any of the volitional acts that constitute "infringement" within the meaning of copyright law. And what he labels as a subscriber's "repeated" acts, or "sequence" of actions, does not refer to any repeated conduct or sequence of activities by *any* individual, much less a Cox subscriber. In his deposition, Dr. Bardwell admitted he does not know if the Rightscorp data actually showed that any Cox subscribers had engaged in what a court would call "infringement," or that they had done anything "repeatedly." He also admits he could have simply used other (less argumentative) terms to describe the data, but he argues that his analysis is valid nonetheless because he stuck to his own definitions. Apparently, in Dr. Bardwell's universe, if he decides to call an apple an orange, he should be allowed to do so at trial as long as he is internally consistent, regardless of wild inaccuracy and ensuing juror confusion. Under both Rule 702 and Rule 403, the Court should reject Dr. Bardwell's transparent attempt to mislead the jury by simply inventing a lexicon to suit Plaintiffs' objectives.

Second, setting aside his misleading rhetoric, Dr. Bardwell is utterly unqualified to offer opinions about alleged infringement by Cox subscribers. Indeed, he admits he lacks expertise to state whether the Rightscorp data showed that a person with a subscription to Cox allegedly infringed. He has no expertise in ISP technology, Internet user behavior, identification of

Internet users, music technology, how users of peer-to-peer networks operate, or copyright law. While his analysis consisted entirely of analyzing Rightscorp data, he has no familiarity with the software or system that generated that data. And while computer software called “R code” generated his results, he neither wrote nor supervised the creation of that code, he never checked its quality, and he has never seen it work.

Third, Dr. Bardwell has failed to disclose either the statistical model on which he relies or the computer code that supposedly implemented it. Plaintiffs have never produced a working version of the R code to allow Defendants to test it, in violation of their disclosure obligations under Rule 26. Dr. Bardwell’s reports also fail to disclose how his purported statistical model works. As a former math instructor, one would think that Dr. Bardwell would understand the importance of showing his work. Yet throughout his reports, he fails to disclose how he reaches his results. As a result, his theory cannot be reproduced, tested or peer reviewed.

Time and again, courts have excluded Dr. Bardwell’s opinions for similar flaws. These courts have found that he relied on assumptions to make unsupported conclusions, provided no meaningful explanation for his analysis, failed to consider significant alternative explanation for his findings, and provided fundamentally flawed opinions that were more likely to confuse than assist the jury. Similarly, the Court here should not permit Plaintiffs to leverage Dr. Bardwell as a vehicle to introduce inadmissible legal arguments. Cox respectfully asks this Court to exclude all opinions from Dr. Bardwell.

BARDWELL’S REPORTS AND TESTIMONY

Dr. Bardwell issued his opening expert report on June 19, 2015. He issued a corrected version of his opening report on June 29, 2015. *See* Exhibit A (“Bardwell Report”). On July 10, 2015, one of Cox’s experts, Ryan Sullivan, Ph.D., issued a rebuttal report, in part critiquing

Dr. Bardwell's opinions on a multitude of grounds. Dr. Bardwell issued his reply report on July 24, 2015. *See* Ex. B ("Bardwell Reply Report"). Dr. Bardwell provided testimony at a deposition on July 27, 2015. *See* Ex. C (relevant excerpts from the Bardwell transcript).

Dr. Bardwell holds a Ph.D. in mathematics and is the founder of Bardwell Consulting, which provides litigation support and expert witness services. *See* Bardwell Report at 28; Ex. C at 25:20-26:13. He has no expertise in Internet technology, BitTorrent or other peer-to-peer technology, cable Internet systems, the music industry, or copyright law. *See* Ex. C at 28:16-19, 29:20-30:10, 39:4-40:11, 53:7-15, 121:18-22. All of Dr. Bardwell's reports in this case rely on one piece of evidence—a set of data that Plaintiffs' agent, Rightscorp, generated for this litigation. *See id.* at 85:10-88:7. Accordingly, to understand the flaws in the Bardwell reports, some background in the content and limitations of the Rightscorp data is helpful.

Rightscorp is a "copyright monetization" business, which makes money by threatening litigation against Internet account holders on behalf of other companies and keeping half the money it collects. Cox MSJ Brief at 1-2 (Dkt. 346). Dr. Bardwell's analysis involves examining a "dump" of Rightscorp data, which purportedly generated records whenever Rightscorp sent out a notice. Bardwell Report at 8-9; Ex. C at 45:1-46:14, 85:10-88:7. According to Dr. Bardwell, the fields relevant to his analysis are the file name, song title and artist name, IP address, port number, emailed date, and "infringement date" (in fact, the date that Rightscorp observed that a file was available on BitTorrent). Bardwell Report at 8-9.

In fact, the Rightscorp data does not show the presence of "songs" on any particular peer computers. Rather, it purports to match portions of "torrent payloads" with IP addresses.

[REDACTED]

[REDACTED]

Declaration of Andrew P. Bridges in Support of Defendants'

Motion for Summary Judgment (Dkt. 311) (“Bridges MSJ Dec.”) ¶ 8(b), (j), Ex. 29; *see*

Declaration of Christopher T. Rucinski in Support of Defendants’ Motion for Summary

Judgment (Dkt. 313) (“Rucinski MSJ Dec.”) ¶¶ 9, 10, 19, Ex. 8. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Bridges MSJ Dec. ¶ 8(a), (f),

Ex. 29; ¶ 15(e)-(g), Ex. 54; Rucinski MSJ Dec. ¶¶ 20, 21. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Bridges MSJ Dec. ¶¶ 15(b), (e), (f), Ex. 54; Rucinski MSJ

Dec. ¶¶ 17-23.

Thus, the Rightscorp data on which Dr. Bardwell relies is notable for what it does *not* show. It does not show a copy of a song on a “peer” computer, nor does it show that anyone (a Cox subscriber or otherwise) downloaded a song from a peer computer. Indeed, it does not show that a Cox account holder (rather than someone else with access to an IP address) used BitTorrent at all. As Rightscorp itself admits, “[t]he biggest reason for filesharing is caused by an unsecured wireless network; *anyone in a close radius can obtain access.*” Defendants’ Memorandum in Support of Motion for Summary Judgment (Dkt. 346) (“Cox MSJ Brief”) at 9 (emphasis added).

Despite these limitations in the data, Dr. Bardwell claims that by merely applying math to the Rightscorp data, he somehow reached a conclusion that individual Cox subscribers engaged in repeated infringement of Plaintiff’s songs. For the reasons this brief discusses below,

the Rightscorp data simply does not show what Dr. Bardwell claims, and no amount of statistical chicanery can change that.

ARGUMENT

To testify as an expert under Rule 702, (1) the expert witness must be qualified; and (2) the methodology by which the expert reaches his opinion must be sufficiently reliable. *See Nimely v. City of New York*, 414 F.3d 381, 396–97 (2d Cir. 2005); *Hudgens v. Bell Helicopters/Textron*, 328 F.3d 1329, 1338 (11th Cir. 2003). “[C]ourts must recognize that due to the difficulty of evaluating their testimony, expert witnesses have the potential to be both powerful and quite misleading.” *Westberry v. Gislaved Gummi AB*, 178 F.3d 257, 261 (4th Cir. 1999) (quoting *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579, 595 (1993)). As a result, the Supreme Court in *Daubert* emphasized that the trial judge must serve as a “gatekeeper” on expert evidence in order to “ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.” *Daubert*, 509 U.S. at 589; *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 152 (1999). As the Fourth Circuit has explained, “[a] reliable expert opinion must be based on scientific, technical or other specialized knowledge and not on belief or speculation, and inferences must be derived using scientific or other valid methods.” *Oglesby v. General Motors Corp.*, 190 F.3d 244, 250 (4th Cir. 1999) (citing *Daubert*, 509 U.S. at 592–93); *see also Smith v. Va. Commonwealth Univ.*, 84 F.3d 672, 687 n.7 (4th Cir. 1996) (“an expert's opinion is inadmissible when it is based on assumptions that are speculative and are not supported by the record.”); *Bryte ex rel. Bryte v. Am. Household, Inc.*, 429 F.3d 469, 477 (4th Cir. 2005) (“*Daubert* aims to prevent speculation”). “Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified. The statements constituting a scientific explanation must be capable of empirical test.” *Daubert*, 509 U.S. at 593.

The *Daubert* Court identified five factors to guide lower courts in identifying the level of reliability in expert testimony: (1) whether a theory or technique can be or has been tested; (2) whether the theory has been subjected to peer review and publication; (3) whether a technique has a high known or potential rate of error; (4) whether there are standards controlling the technique's operation; and (5) whether the theory or technique enjoys general acceptance within a relevant scientific community. *Phelan v. Synthes U.S.A.*, 35 F. App'x 102, 106 (4th Cir. 2002) (citing *Daubert*, 509 U.S. at 592–94). These factors “do not constitute a definitive checklist or test.” *Kumho Tire*, 526 U.S. at 150 (internal quotation marks omitted). “Rather, the inquiry into the reliability of an expert's methodology must be flexible and case-specific.” See *Simo v. Mitsubishi Motors North America, Inc.*, 245 F. App'x 295, 301 (4th Cir. 2007) (citing *Maryland Cas. Co. v. Therm-O-Disc, Inc.*, 137 F.3d 780, 784–85 (4th Cir. 1998)).

Rule 702 also requires that an expert's testimony be “based upon sufficient facts or data,” and courts have held that a “lack of sufficient data and factual support negatively affects the reliability of conclusions reached in any case” *Lumber Liquidators, Inc. v. Stone Mountain Carpet Mills, Inc.*, No. 3:08-cv-00573, 2009 WL 5876245, at *3 (E.D. Va. July 23, 2009) (excluding expert testimony and finding that the expert's testimony was not “based on sufficient facts or data” due to the absence of reliable and relevant data).

Plaintiffs bear the burden of establishing the admissibility of Dr. Bardwell's testimony by a preponderance of the evidence. See *Daubert*, 509 U.S. at 592 n.10. In determining whether the evidence will be helpful to the trier of fact, the Fourth Circuit has observed that “a judge must be mindful of other evidentiary rules,” specifically Federal Rule of Evidence 403. *United States v. Dorsey*, 45 F.3d 809, 813 (4th Cir. 1995). Rule 403 permits the exclusion of evidence “if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of

the issues, or misleading the jury.” The Supreme Court has stated that a trial judge must be particularly concerned about Rule 403 with regard to expert testimony because of the difficulty in evaluating expert evidence. *Daubert*, 509 U.S. at 595. Expert testimony has potential to mislead the jury, since the jury may attach more significance to the testimony than is reasonably warranted. *United States v. Lester*, 254 F. Supp. 2d 602, 607 (E.D. Va. 2003).

I. DR. BARDWELL’S OPINIONS CONSIST OF DECEPTIVE LEGAL ARGUMENTS MASQUERADING AS SCIENTIFIC OBSERVATIONS.

The crux of Dr. Bardwell’s opinion, expressed throughout his reports, is that “repeated infringement” of Plaintiffs’ “songs” is attributable to “individual Cox subscribers.” Bardwell Report at 4, 6, 16, 22, 24. As he describes his assignment, “Plaintiffs have retained me to analyze the probability that sequential file sharing activity in the data collected by Rightscorp constitutes repeat Infringements attributable to individual Subscribers.” Bardwell Report at 5. Thus, Dr. Bardwell does not, as Plaintiffs have recently argued, simply link IP addresses to accounts. Rather, he seeks to testify on one of the ultimate issues in the case, claiming that individuals who subscribe to Cox Internet service repeatedly infringed Plaintiffs’ copyrights.

Jurors hearing this testimony would reasonably conclude that Dr. Bardwell’s words have their ordinary meaning: that a “Cox Subscriber” is a person who subscribes to Cox Internet; that “infringement” refers to infringing acts under copyright law; that “repeated infringement” refers to repetition of those acts; and that a “sequence of infringements” refers to a series or set of such acts. Those jurors would be wrong. In Dr. Bardwell’s deposition, it became clear that none of these terms have their ordinary meanings. Rather, they have counterfactual meanings that *he* assigned to them, all in the service of Plaintiffs’ litigation objectives.

Infringement: Dr. Bardwell purports to be a mathematician, not a legal expert, yet he makes conclusions throughout his report about “infringement,” a loaded legal term about which

he knows nothing. *See generally* Bardwell Report. He admits that his definition of “infringement” refers to Rightscorp’s mere “observation” of a file that is available. Ex. C at 45:1-10. And in his deposition, he confirmed that an “observation” essentially means an entry in Rightscorp’s infraction table. *Id.* He does not assert, nor can he, that an entry in the Rightscorp data shows the download of a song, or any reproduction of a song in a copy or phonorecord. *Id.* at 64:14-65:10; 66:1-4. Nor does he contend that these entries show any other act that constitutes infringement under Section 106 of the Copyright Act. *Id.* at 69:17-72:12.

Dr. Bardwell admits that he has no opinion as to how his unique definition of “infringement” relates to or contradicts how *courts* define it. *Id.* at 59:10-14, 72:14-73:4. And when confronted with [REDACTED]

[REDACTED]

[REDACTED] *Id.* at 96:16-97:17.

Dr. Bardwell concedes that he could have used a word other than “infringement,” but he claims he needed terminology that was “consistent” with the definition in the Rightscorp data. Ex. C at 56:20-58:9. Put differently, Dr. Bardwell hopes to offer opinions about “infringement” not based on any factual or scientific basis, but because of the biased and inaccurate terminology of Rightscorp, Plaintiffs’ litigation agent.

In a circular argument, Dr. Bardwell rejects all criticisms of his misdefinition of

[REDACTED] as [REDACTED] because his use of that term is [REDACTED]

[REDACTED] Bardwell Reply Report at 4-5 (emphasis added). In other words, as long as he is *internally* consistent, Dr. Bardwell believes the Court should permit him to testify about anything, regardless of how irrelevant, inaccurate, confusing, and deceptive that

testimony may be. The Court should reject this untenable result, both under the Court's Rule 702 gatekeeping role, and under the fundamental evidence principles of Rules 401, 402, and 403.

Subscriber: Dr. Bardwell's references to "subscribers" are also misleading and unfairly prejudicial. To an ordinary juror, the term "Cox subscriber" would obviously refer to someone who subscribes to Cox. And in his opening reports, Dr. Bardwell defined "Subscriber" precisely this way, stating that it referred to "Cox's internet service subscribers." Bardwell Report at 31. He initially stuck with this definition in his deposition, claiming that a "subscriber" referred to the holder of a Cox Internet account. Ex. C at 53:17-24. When pressed, however, he admitted that throughout his reports, "subscriber" does not refer to person with a Cox account, or to any a person at all. Rather it refers to an "Internet access node to which Cox assigns an Internet protocol ('IP') address." *Id.* at 53:25-55:7, 74:15-75:12, 99:24-100:15.²

Dr. Bardwell has no idea whether individual subscribers committed acts associated with the Rightscorp data. He admitted it was outside the scope of his expertise to state whether a Cox subscriber made a song available, and he does not know whether any individual subscribers made copies. *Id.* at 53:7-15, 67:3-16, 69:5-72:12. This is important, as Rightscorp's own documents underscore the point that "[t]he biggest reason for filesharing is caused by an unsecured wireless network; *anyone in a close radius can obtain access.*" Cox MSJ Brief at 9 (emphasis added). As courts have observed, "that a copyrighted work was illegally downloaded from a certain IP address does not necessarily mean that the owner of that IP address was the infringer." *Malibu Media, LLC v. Does 1-5*, No. 1:12-cv-02950, 2012 WL 2001968, at *1 (S.D.N.Y. June 1, 2012). Infringing activity might be by "someone in the subscriber's household, a visitor with her laptop, a neighbor, or someone parked on the street at any given moment."

² Dr. Bardwell uses the term "infringer" in a similarly misleading way, admitting that this term also refers to IP addresses, not people. Ex. C at 123:21-124:4.

VPR Internationale v. Does 1-1017, No. 2:11-cv-02068, 2011 WL 8179178, at *2 (C.D. Ill. Apr. 29, 2011).

In his deposition, Dr. Bardwell admitted that the Rightscorp data did not distinguish between files that were observed on secured versus unsecured wireless networks. *Id.* at 91:7-25, 92:13-93:20. He also had no idea whether Rightscorp did anything to identify and filter out observations in its records that were caused by viruses or malware rather than a subscriber's actions. *Id.* at 133:19-135:15, 91:7-25. Thus, he has no factual basis to claim that that Rightscorp data shows any conduct by Cox subscribers.

Dr. Bardwell claims he “misspoke” when he “assigned personhood to a subscriber.” Ex. C at 54:16-21. Yet throughout his reports, it is obvious that he is attempting to do just that, and jurors hearing testimony about “individual Cox subscribers” would reasonably—but wrongly—believe this refers to people who are Cox Internet account holders. Accordingly, the Court should exclude Dr. Bardwell's reports and proposed testimony about infringement by “subscribers” under Rules 702, 401 and 403.

“Repeated” Infringements: Equally misleading are Dr. Bardwell's references to (1) “repeated” infringements, (2) “sequences” of infringements, and (3) counts of allegedly separate “infringements.” In his deposition, he conceded that the term “repeated Infringement” refers only to “repetition in the Rightscorp data.” Ex. C at 46:20-47:4, 51:3-10. He could not say whether “repeated” in this context referred to *any* repeated act by an Internet subscriber. *Id.* at 46:16-47:12. He does not know whether Internet users “repeatedly” made available particular songs. *Id.* at 50:8-14. In fact, repetition in the Rightscorp data would attach to an IP address that receives multiple notices for the same song on the same day, multiple notices for the same song over a span of consecutive days, and notices for each song in a .torrent file even where the IP

address maps to a peer computer that has only 10% of that .torrent file—possibly containing no songs. *See id.* at 46:17-47:4, 47:14-49:12, 48:24-49:12, 50:8-25, 62:9-63:25, 107:20-108:3.

Dr. Bardwell’s use of the term “sequence of infringements” is equally argumentative and unsupported. *See, e.g.,* Bardwell Report at 6. [REDACTED]

[REDACTED]

[REDACTED] Ex. C at 128:9-129:18.

Dr. Bardwell’s attempt to summarize “counts” of supposed “infringements” suffers from this same problem. While a juror would reasonably conclude that Dr. Bardwell is counting some separate infringing acts, in fact each “count” merely refers to a record in the Rightscorp data, which occurs each time Rightscorp sends a notice. *See id.* at 46:20-47:4, 51:3-10, 97:8-17.

Dr. Bardwell concludes that the Rightscorp data shows over two million “infringements,” but he has no opinion as to whether that number represents separate acts of infringement. *Id.* at 73:16-25. He concludes that the “maximum number of infringements” is over eight thousand, but he admits that number refers not to the number of infringements by any person, but to the number of notices that Rightscorp sent out, admitting “there could be repetition” as to the same file. *Id.* at 80:12 -81:2, 107:20-108:3.

In sum, Dr. Bardwell’s opinions about “repeated infringement by Cox subscribers” are untethered to the evidence, use partisan and inflammatory rhetoric, and lack any factual or scientific support. These are not subtle points of debate about scientific methodologies that go to evidentiary weight. Rather, this is a prime example of when the Court should exercise its gate-keeping role and join the several other courts that have flatly rejected Dr. Bardwell’s testimony.

II. DR. BARDWELL IS NOT QUALIFIED TO OFFER OPINIONS ABOUT WHETHER INDIVIDUAL COX SUBSCRIBERS ENGAGED IN INFRINGEMENT.

The Court should exclude Dr. Bardwell's opinions concerning alleged infringement by Cox subscribers for an additional and independent reason: he has no qualifications to offer those opinions. Dr. Bardwell is a mathematician. He has no qualification to testify that what he has observed in the Rightscorp data is "infringement," is by a "subscriber," is "repeated," or even involves a "song." He admitted it was outside the scope of his expertise to state whether the Rightscorp data showed that a person with a subscription to Cox is the person who allegedly made a song available. Ex. C at 53:7-15. He has no expertise in ISP technology or Internet user behavior, and he has never performed an analysis involving identification of internet users. *Id.* at 28:16-19, 39:21-25. He also has no expertise in music technology or how music sharers operate. *Id.* at 121:18-22. And he has no expertise in copyright law or what constitutes infringement. 39:4-11.

Further, although Dr. Bardwell's analysis consisted entirely of analyzing the Rightscorp data, he has no familiarity with the software or system that generated that data. *See* Ex. C at 62:9-63:25, 66:1-4, 79:8-15, 79:19-25, 89:12-23, 91:7-25, 107:20-108:3. He never reviewed the Rightscorp code or tested its accuracy, and his testimony revealed that he misunderstood how it worked. Ex. C at 89:12-23. For example, Dr. Bardwell was unaware of the 10% bitfield threshold in the Rightscorp code and its implications, testifying that he understood that a peer computer must contain a copy of a full song file to generate a notice for that song (rather than a small portion of a *.torrent payload purportedly containing that song). *Id.* at 62:9-63:25.

Finally, although Dr. Bardwell's analysis relied on computations performed by software called "R code," he did not write the R code, and he neither supervised its creation nor checked

its accuracy. *Id.* at 17:11-18:4. He also never saw the code work. *Id.* at 33:12-34:10. He thus lacks any qualification to testify how the code worked or whether it was reliable.

Rule 702 requires that a witness be qualified as an expert by knowledge, skill, experience, training, or education. Dr. Bardwell, while trained in mathematics, lacks any qualification to testify as to the opinions in his reports, all of which pertain to claims that the Rightscorp data shows repeat infringement by individual Cox subscribers. Accordingly, the Court should exclude Dr. Bardwell from testifying.

III. DR. BARDWELL’S CONCLUSIONS ARE UNRELIABLE AND UNTESTABLE.

Other flaws seriously undermine Dr. Bardwell’s opinions. *First*, he fails to show key steps in his analysis. In his reports, he claims to calculate certain probabilities by applying a “Markov” model. Declaration of Ryan Sullivan, Ph.D., In Support of Cox’s Motion to Exclude the Testimony of Putative Expert Robert A. Bardwell, Ph.D. (“Sullivan Dec.”) ¶ 5. While he purports to lay out a methodology underlying this model (and he includes exhibits showing certain equations), he simply does not show his math; he leaves out several essential steps that would allow others to test or replicate his calculations. *Id.* The absence of these steps makes it impossible to verify his calculations and the conclusions he draws from them. *Id.*

For example, although he discusses certain numerical parameters in describing the calculations he performed, he leaves out the *values* of several parameters. *Id.* ¶ 6; *see, e.g.*, Bardwell Report at 40-44. This is like claiming that one can multiply x by y to reach result z , but failing to disclose what x and y are, and then arguing that z is the correct result. Sullivan Dec. ¶ 6. In other instances where Dr. Bardwell does supply numerical estimates for parameters, he fails to explain or demonstrate how he calculated them. *Id.* Dr. Bardwell also did not use any control data to test his hypothesis, and he failed to provide any error rate or accuracy rate—a point for which courts have criticized him before. Ex. C at 187:18-189:16; 229:25-231:3; *Werde v.*

Allright Holdings, Inc., No. 1:03-cv-01167, 2005 WL 2124553, at *5 (D. Colo. Sept. 2, 2005) (granting motion to strike where “Dr. Bardwell’s conclusions [we]re not testable and the rate of error [could not] be determined”).

Similarly, Dr. Bardwell fails to explain how he arrives at values he assigns to the probabilities of certain events. Sullivan Dec. ¶ 7. For example, he calculates the probability that observations of songs over time were attributable to the same “Subscriber” (in fact, a node). *Id.* He assumes that if two observations of the same song occur with a certain period of time, the likelihood that both observations are associated with the same “Subscriber” increase by “12 thousand fold.” *Id.*; Bardwell Report at 20. However, he assumes that if the songs are different, the probability that both are associated with the same “Subscriber” decreases by “one fifth.” Sullivan Dec. ¶ 7; Bardwell Report at 20. Dr. Bardwell does not explain how he estimated either the 12,000 or one-fifth parameter values, and the tables and exhibits in his reports do not clarify this. Sullivan Dec. ¶ 7. In his deposition, he claims that he applied formulas to reach these results, but he admits he did not spell out the rule that leads to these results. Ex. C at 222:5-226:2. Dr. Bardwell has been criticized before for this precise failure. *See Manley v. Nat’l ProSource, Inc.*, No. 4:11-cv-02408, 2013 WL 3480385, * 8 (S.D. Tex. July 10, 2013) *aff’d sub nom. Manley v. Invesco*, 555 F. App’x 344 (5th Cir. 2014) *cert. denied*, 135 S. Ct. 335, 190 L. Ed. 2d 63 (2014).

Second, Dr. Bardwell has not produced a working version of the R code on which his analysis depends. Sullivan Dec. ¶ 8. When the code is run in a standard version of the R software environment, it generates fatal errors. *Id.* ¶ 9. In his Reply Report, Dr. Bardwell suggests that [REDACTED] but he admitted in his deposition that he had not ever run the code himself to confirm that it works. Reply Report at

34; Ex. C at 33:24-42:6. In fact, the code itself is not functional irrespective of the libraries loaded. Sullivan Dec. ¶ 9. Rather, the code appears to be a collection of manual processes, which by its nature does not allow others to evaluate the model or any potential output. *Id.*

In sum, Dr. Bardwell's analysis is not of a type that can be peer reviewed or otherwise recognized as valid and reliable. His model and accompanying analysis are unverifiable, with no known error rate and no way to replicate the results. Sullivan Dec. ¶ 4.


Courts have repeatedly excluded or otherwise discredited Dr. Bardwell for precisely these types of issues. For example, in *Coleman v. Oracle USA, Inc.*, a discrimination case, the court excluded Dr. Bardwell's opinions under Rule 702, finding that they were "not relevant to [plaintiff's] claim and are so attenuated as to preclude a reasonable inference of individual disparate treatment of [plaintiff]." *Coleman v. Oracle USA, Inc.*, No. 0:09-cv-03472, 2011 WL 2746187, at *5 (D. Minn. July 14, 2011). The court concluded that Dr. Bardwell's reports were "more likely to confuse the jury" than assist trier of fact, they were not reliable, and they were speculative because there was "no evidence that Bardwell ruled out alternative explanations or considered relevant ... variables in reaching his conclusions." *Id.* at *5-6. Finally, the court observed that, as he does here, "[Dr.] Bardwell relied on assumptions to make unsupported conclusions." *Id.* at *6.

Similarly, in *Manley*, the court found that Dr. Bardwell's reports failed to comply with Rule 702, and therefore failed to create genuine issues to overcome summary judgment. *Manley*, 2013 WL 3480385, at *7-8. The court found that "Bardwell's methodology contains significant flaws or omissions that render his opinions unreliable and not relevant," and he provided "no meaningful explanations" of how he reached his conclusions. *Id.* at *8. The *Manley* court noted

that Dr. Bardwell's listed variables "without analytical explanation," concluding that his "*ipse dixit* conclusion is an insufficient basis for admissibility." *Id.*

Likewise, in *Werde*, 2005 WL 2124553, at *5, the court excluded Dr. Bardwell's testimony under Rule 702, concluding that his analysis was unreliable. The court found that "Dr. Bardwell's conclusions are not testable and the rate of error cannot be determined." *Id.* That court further concluded that Dr. Bardwell's "methodology as applied here would not be accepted by the scientific community and would not be based upon peer review." *Id.*

Dr. Bardwell maintains that in each of these case, the judge "got it wrong." *See* Ex. C at 205:8-16, 208:25-209:17, 214:12-17. Despite these decisions, he continues to maintain that

 Bardwell Reply Report at 35. Not so. *Kumho Tire* made clear that the Court's responsibility "is to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom *the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.*" 526 U.S. at 151 (emphasis added). Fulfilling that gatekeeping role, the Court should exclude Dr. Bardwell here.

CONCLUSION

Dr. Bardwell's opinions exemplify what the Supreme Court in *Daubert* cautioned against: the potential of expert testimony to be "both powerful and quite misleading." Relying on undisclosed and apparently arbitrary methods, he reaches conclusions as to which he has no expertise, permeated with inflammatory and prejudicial rhetoric, with no nexus to the actual evidence on which he relies. No limiting instruction can overcome these fatal flaws. The Court should exclude Dr. Bardwell's opinions.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on October 23, 2015, the foregoing was filed and served electronically by the Court's CM/ECF system upon all registered users:

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